

**CONTRACT FOR CONSTRUCTION OF REQUIRED IMPROVEMENTS
AND INFRASTRUCTURE FOR**

THIS CONTRACT, made and entered into this _____ day of _____, 20____, by and between River Oaks, LLC, hereinafter referred to as Developer, and Martin County, a political subdivision of the State of Florida, hereinafter referred to as County.

W I T N E S S E T H:

WHEREAS, the Developer has made application to County for approval and recordation of the plat of River Oaks (F/K/A Holman Subdivision); and

WHEREAS, completion of certain improvements and infrastructure is required prior to plat recordation; and

WHEREAS, Section 4.913.B, Land Development Regulations, Martin County Code, provides that in lieu of completion of the required improvements and infrastructure prior to plat recordation, security may be posted to insure completion.

NOW THEREFORE, the Developer and County agree as follows:

1. By June 1, 2020, Developer shall complete the required improvements and infrastructure for the above referenced project pursuant to the final site plan approved on June 1, 2018, and construction plans accepted by the County Engineer or his designee, hereinafter referred to as the County Engineer. The itemized list of required improvements and infrastructure is more particularly set forth in Exhibit A, attached hereto and made a part hereof.

2. The Developer shall supply the County with security, in a form acceptable to the Board of County Commissioners, in the amount of \$ 689,042.25. Said security is attached as Exhibit B, which represents one hundred percent (100%) of the estimated cost of the completion of the required improvements and infrastructure as submitted by a professional engineer licensed in the State of Florida and accepted by the County Engineer and as shown on Exhibit A. The expiration date for any security provided shall be no

sooner than fifteen (15) months after the completion date for the required improvements as set forth in Paragraph 1 above, which is comprised of the warranty period plus three months.

3. The required improvements and infrastructure shall be constructed in full compliance with the specifications and requirements of the County under the supervision of Developer's Engineer. When complete, Developer's Engineer shall furnish an Engineer's Certification of Construction Completion to the County Engineer for acceptance.

4. Release of Security

- a. Upon receipt of the Engineer's Certification of Construction Completion and a request to release up to ninety percent (90%) of the posted security, the County Engineer will perform a site acceptance inspection of the constructed improvements and infrastructure with the Developer's Engineer. Should it be determined that all improvements and infrastructure are complete and acceptable to the County Engineer, up to ninety percent (90%) of the posted security shall be released accordingly. At the request of the Developer's Engineer in the form of a reduction schedule, partial releases may be authorized by the County Engineer up to ninety percent (90%) of the posted security as work is completed and accepted. The remaining ten percent (10%) shall be held as warranty security.
- b. In the event Developer's Engineer and the County Engineer agree that certain "punchlist" items remain outstanding, one-hundred (100%) of the value of said "punchlist" items shall be added to the ten percent (10%) and included as warranty security.
- c. The warranty security shall be held for the additional fifteen (15) months from the date of the site acceptance by the County Engineer, at which time the Developer's Engineer shall request its release and the County Engineer will perform a final inspection. If all improvements and infrastructure, including "punchlist" items, are free of defects due to faulty field engineering,

construction, workmanship, or materials, the warranty security shall be released by the County Engineer.

5. In the event the required improvements and infrastructure are not completed by the date set forth in Paragraph 1, or Developer fails to maintain the required security as set forth in Paragraph 2, or the County is advised that the term of the required security will not be extended, County shall have, and is hereby granted, the right to cause the required improvements and infrastructure to be made and to use the security provided herewith for payment of all costs and expenses incurred in the construction thereof, including but not limited to, engineering, legal, and contingent costs. Furthermore, it is agreed by the parties hereto that County shall be reimbursed from the security provided for any damages, either direct or consequential, which the County may sustain as a result of the failure of Developer to carry out and execute all of the provisions of this Contract. County shall have the option to construct and install the required improvements with County employees and equipment, or pursuant to public advertisement and receipt of bids, in the event of Developer's failure or refusal to do so in accordance with the terms of this Contract. In the event that the total costs incurred in construction and full completion of the improvements exceeds the amount of security provided, such additional costs shall be paid by Developer on written demand by the County Engineer.

6. Developer designates the following person as its representative to be contacted and to receive all notices regarding this Contract:

Don R. Mancil, Jr.
Name
8530 SW Jayme Way
Address
Palm City FL 34990
City, State and Zip
772-288-0951
Telephone

IN WITNESS WHEREOF, the parties hereto have executed these presents on the dates indicated below. The date of this Contract shall be the date on which this Contract

was approved by the Board of County Commissioners.

Exhibit A – Engineer’s Opinion of Probable Cost

Exhibit B –Security Form (sample forms are available by requested or located at www.martin.fl.us)

[For an individual acting in his own right]

OWNER/DEVELOPER

WITNESSES:

OWNER(S):

Name _____

Name _____

Name _____

Name _____

Name _____

Name _____

Date: _____

Address: _____

STATE OF _____]
COUNTY OF _____]

The foregoing Contract for Construction of Required Improvements and Infrastructure is acknowledged before me this ____ day of _____, 20__, by _____ and _____ . He or she () is / are personally known to me or () has / have produced _____ as identification.

[NOTARY STAMP]

NOTARY PUBLIC

Name _____
My Commission Expires: _____

COUNTY

ATTEST

BOARD OF COUNTY COMMISSIONERS
MARTIN COUNTY, FLORIDA

Carolyn Timmann, Clerk of the
Circuit Court and Comptroller

, Chair

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

Krista A. Storey
Senior Assistant County Attorney

OWNER/DEVELOPER

WITNESSES:

Name _____

Name _____

CORPORATION:

Name of Corporation
By: _____
Name _____
Title: _____
Attest:

Secretary
Date: _____
Address: _____

STATE OF _____]
COUNTY OF _____]

I hereby certify that on this day, before me, an officer duly authorized in the aforesaid State and County to take acknowledgments, personally appeared _____ and _____ President and Secretary of _____, a _____ corporation on behalf of the corporation, to me known to be the persons described herein and who executed the foregoing Contract for Required Improvements and Infrastructure and acknowledged before me that he executed same. Witness my hand and official seal in the County and State last aforesaid this ____ day of _____, 20__.

[NOTARY STAMP]

NOTARY PUBLIC

Name: _____
My Commission Expires: _____

COUNTY

ATTEST

BOARD OF COUNTY COMMISSIONERS
MARTIN COUNTY, FLORIDA

Marsha Ewing, Clerk

Chairman

APPROVED AS TO FORM AND
CORRECTNESS

Krista A. Storey
Senior Assistant County Attorney

EXHIBIT A



MARTIN COUNTY ENGINEERING DEPARTMENT ENGINEER'S OPINION OF PROBABLE COST

PROJECT NAME: River Oaks Subdivision

PHASE/PARCEL/PLAT: _____

ITEM	QTY	UNIT	UNIT PRICE	AMOUNT
EARTHWORK/SITEWORK				
a) Mobilization	1	LS	\$8,000.00	8,000.00
b) Clearing, grading and grubbing	5.0	AC	\$3,000.00	15,000.00
c) Excavation (cut)	6,310	CY	\$7.00	44,170.00
d) Embankment (fill)	6,310	CY	\$12.50	78,875.00
e) Sod and seed/mulch	8,245	SY	\$2.00	16,490.00
f) Concrete disposal	0.0	TN	\$60.00	0.00
g) Erosion control	1	LS	\$31,500.00	31,500.00
h) Fencing/railing	0	LS	\$0.00	0.00
i) Materials testing	1	LS	\$9,000.00	9,000.00
			Subtotal	203,035.00
ROADWORK				
a) Asphalt milling, 1" avg.	1,792	SY	\$1.50	2,688.00
b) Stabilized subgrade, roll in place	4,141	SY	\$3.00	12,423.00
c) Stabilized subgrade, Type B, 12" thick	0	SY	\$7.50	0.00
d) Paving base, optional base group 6	3,423	SY	\$12.50	42,787.50
e) Paving base, optional base group 9	0	SY	\$15.50	0.00
f) Paving base, other	0	SY	\$21.00	0.00
g) Asphaltic concrete, SP-9.5, 1-1/2" thick	730	SY	\$15.00	10,950.00
h) Asphaltic concrete, SP-9.5, 2 1/2" thick	2,617	SY	\$25.00	65,425.00
i) Asphaltic concrete, SP-9.5, 3" thick	0	SY	\$30.00	0.00
j) Asphalt overlay, SP-9.5 (<= 150 tons)	135.0	TN	\$150.00	20,250.00
k) Asphalt overlay, SP-9.5 (> 150 tons)	0.0	TN	\$120.00	0.00
l) Pervious asphalt or concrete	0	SY	\$60.00	0.00
m) Concrete curb & gutters	2,479	LF	\$14.25	35,325.75
q) Sidewalk, 6' wide	1,384	LF	\$25.00	34,600.00
r) Maintenance of traffic (M.O.T.)	1	LS	\$6,870.00	6,870.00
			Subtotal	231,319.25
DRAINAGE				
a) Inlets / Manholes (<10' depth)	15	EA	\$3,000.00	45,000.00
b) Inlets / Manholes (10' or > depth)	0	EA	\$4,000.00	0.00
c) Control structures	1	EA	\$6,000.00	6,000.00
d) Endwalls	0	CY	\$700.00	0.00
e) Rip-rap	0	CY	\$80.00	0.00
f) Storm culvert, 15" dia. or equiv.	586	LF	\$28.00	16,408.00
g) Storm culvert, 18" dia. or equiv.	953	LF	\$34.00	32,402.00
h) Storm culvert, 24" dia. or equiv.	0	LF	\$48.00	0.00
i) Storm culvert, 30" dia. or equiv.	0	LF	\$65.00	0.00



MARTIN COUNTY ENGINEERING DEPARTMENT ENGINEER'S OPINION OF PROBABLE COST

j) Storm culvert, 36" dia. or equiv.	<u>0</u>	LF	\$88.00	0.00
k) Storm culvert, 48" dia. Or equiv.	<u>0</u>	LF	\$125.00	0.00
l) Exfiltration trench	<u>0</u>	LF	\$100.00	0.00
			Subtotal	99,810.00

UTILITIES

a) Water main, 4"	<u>0</u>	LF	\$13.00	0.00
b) Water main, 6"	<u>582</u>	LF	\$17.50	10,185.00
c) Water main, 8"	<u>436</u>	LF	\$23.50	10,246.00
d) Water main, 10"	<u>0</u>	LF	\$31.25	0.00
e) Water main, 12"	<u>0</u>	LF	\$40.00	0.00
f) Water service, single	<u>5</u>	EA	\$790.00	3,950.00
g) Water service, double	<u>8</u>	EA	\$930.00	7,440.00
h) Fire hydrant assembly	<u>3</u>	EA	\$3,600.00	10,800.00
i) Sewer main, 8" gravity (<=8' depth)	<u>697</u>	LF	\$28.00	19,516.00
j) Sewer main, 8" gravity (<8'-12' depth)	<u>367</u>	LF	\$43.00	15,781.00
k) Sewer main, 8" gravity (<12'-16' depth)	<u>0</u>	LF	\$88.00	0.00
l) Sewer main, 8" gravity (<16'-20' depth)	<u>0</u>	LF	\$104.00	0.00
m) Sewer main, force, (4")	<u>0</u>	LF	\$13.50	0.00
n) Sewer manhole (<=8' depth)	<u>5</u>	EA	\$2,900.00	14,500.00
o) Sewer manhole (<8'-12' depth)	<u>1</u>	EA	\$3,850.00	3,850.00
p) Sewer manhole (<12'-16' depth)	<u>0</u>	EA	\$5,500.00	0.00
q) Sewer manhole (<16'-20' depth)	<u>0</u>	EA	\$8,800.00	0.00
r) Sewer lateral, single	<u>5</u>	EA	\$900.00	4,500.00
s) Sewer lateral, double	<u>8</u>	EA	\$1,100.00	8,800.00
t) Lift Station	<u>0</u>	EA	\$0.00	0.00
u) Directional drill (<= 6" dia.)	<u>0</u>	LF	\$50.00	0.00
v) Directional drill (8"-10" dia.)	<u>100</u>	LF	\$88.00	8,800.00
w) Directional drill (12" or > dia.)	<u>0</u>	LF	\$140.00	0.00
			Subtotal	\$118,368.00

TRAFFIC

a) Signage	<u>1</u>	LS	\$1,900.00	1,900.00
b) Striping	<u>1</u>	LS	\$7,565.00	7,565.00
c) Control devices (signals)	<u>0</u>	EA	\$0.00	0.00
			Subtotal	\$9,465.00

SURVEY

a) Setting P.C.P.'s	<u>1</u>	LS	\$1,000.00	1,000.00
b) Setting and replacing all P.R.M.'s	<u>1</u>	LS	\$1,000.00	1,000.00
c) Setting all lot corners	<u>1</u>	LS	\$2,500.00	2,500.00
			Subtotal	\$4,500.00



MARTIN COUNTY ENGINEERING DEPARTMENT ENGINEER'S OPINION OF PROBABLE COST

MISCELLANEOUS

a)	Paver Brick Cross-walk	1	LS	\$4,125.00	4,125.00
b)	15" M.E.S.	2	EA	\$1,155.00	2,310.00
c)	18" M.E.S.	4	EA	\$1,265.00	5,060.00
d)	Armor Tile Detectable Warnings	2	EA	\$400.00	800.00
e)	Relocate Exist. Wd. PP (FPL)	1	LS	\$5,000.00	5,000.00
f)	Wet Tap Water Main	1	LS	\$5,250.00	5,250.00

Subtotal **\$22,545.00**

TOTAL ESTIMATED COST OF IMPROVEMENTS **\$689,042.25**

Disclaimer

- 1) Unit prices pre-entered on this spreadsheet reflect Martin County annual requirements contractors' unit prices and should not be modified without the approval of the County Engineer or his designee.

Prepared by:

Scott T. Montgomery
Professional Engineer's Name


Professional Engineer's Signature / Seal

#45954
P.E. No.

September 10, 2018
Date

C. Calvert Montgomery & Assoc., Inc. #00160
Firm's Name and Licensed Business No. (if applicable)

P.O. Box 92, Stuart, FL 34995
Firm's Address

772-287-3636
Phone No.

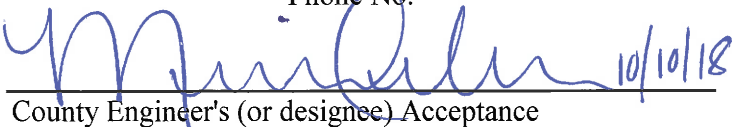

County Engineer's (or designee) Acceptance

EXHIBIT B

PERFORMANCE SURETY BOND

Bond No. _____

KNOWN ALL MEN BY THESE PRESENTS:

That River Oaks, LLC as Principal, and North American Specialty Insurance, as Surety, are held and firmly bound unto Martin County Board of County Commissioners, Stuart, Florida, as Obligees, in the sum of \$689,042.25, for the payment of which sum, well and truly to be made, the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

This bond is delivered to Obligees pursuant to Section 4.913B of the Martin County Land Development Code ("Section 4.913B") and the terms of the Minor Development Final Site Plan Approval between the Obligees and the Principal dated June 1, 2018, a copy of which is attached as Exhibit A and incorporated into this bond by reference. As a condition precedent to the Obligees' agreement(s), approval(s), and/or acceptance(s) set forth in Exhibit A, the Principal is required to deliver a good and sufficient bond to warrant and ensure the performance of the work specified in Exhibit A, and to indemnify and save harmless the Obligees from any and all damages and costs caused by the failure to complete the work and/or project in the manner and within the time period described in Exhibit A.

The condition of this obligation is such that if the Principal fully performs its obligations to complete the work described in Exhibit A within two years from June 1, 2018 as evidenced by written approval of the Obligees in the form required by Section 4.913B, then this bond shall be void. Otherwise, this bond remains in full force and effect.

The Surety unconditionally agrees that, upon 30 days written notice by the Obligees (or its authorized agent or officer) stating that the Principal has defaulted on its obligations to perform and complete the work described under Exhibit A, the Surety will fully perform and complete the work, pay the costs of doing so, and indemnify, defend and hold harmless the Obligees for any and all damages and costs (including attorneys' fees) incurred as a result of the Principal's default, up to the dollar amount of this bond stated above. If the Surety fails to perform its obligations under this bond, the Obligees shall have the right to resort to any and all legal and equitable remedies against the Principal and the Surety, or either one of them, including, but not limited to, specific performance.

The Surety and the Principal jointly and severally agree that, as an alternative to requiring the Surety to perform and complete the work described in Exhibit A upon the

Principal's default, the Obligee, at its option, shall have the right to perform and complete the work (either itself or through its agents or contractors). In the event the Obligee elects to exercise this right, the Surety and Principal shall be jointly and severally liable to reimburse the Obligee for all costs of performing and completing such work and indemnify, defend and hold harmless the Obligee for any and all damages and costs (including attorneys' fees) incurred as a result of the Principal's default, up to the dollar amount of this bond stated above.

IN WITNESS WHEREOF, the Principal and Surety have caused this performance bond to be executed by their authorized agents this _____ day of _____, 20____.

SURETY

[INSERT NAME OF SURETY]

PRINCIPAL

[INSERT NAME OF PRINCIPAL]

By:_____

Name:_____

Title:_____

By:_____

Name:_____

Title:_____

Power of Attorney Must be Attached

Printed Name: _____
Commission Expires: _____

**CERTIFICATE OF AUTHORITY OF
MANAGERS TO ACT ON BEHALF OF RIVER OAKS, LLC**


The undersigned, as all of the members of River Oaks, LLC, a Florida limited liability company (the "Company"), hereby certify that:

01. The Company is a duly formed, validly existing limited liability company in good standing under the laws of the State of Florida.
02. The Company is a manager managed limited liability company.
03. As shown on the records of the Division of Corporations of the office of Secretary of State of the State of Florida as shown on the attached **Exhibit 1**, the managers of the Company are Don R. Mancil and Paul D. Filipe.
04. The minutes of the Company reflect that the managers of the Company are Don R. Mancil and Paul D. Filipe.
05. The Operating Agreement of the Company provides in part as follows:


6.04 **Decisions of Managers.** When there is more than one Manager, any Manager may take any action permitted to be taken by the Managers, unless the approval of more than one Manager is required by this Agreement, by the Act, or by other applicable law.
06. There are no provisions in the Operating Agreement or law which prevents either of the managers, Don R. Mancil or Paul D. Filipe, from individually representing the Company in the processing of the plat of River Oaks (F/K/A Holman Subdivision) under Martin County, Florida Project Number M211-005.

The undersigned have executed this Certificate on the date(s) set forth below.

River Oaks, LLC, a Florida limited liability company by all of its members



Don R. Mancil
March 18, 2019



Paul D. Filipe
March 18, 2019



Recorded in Martin County, FL 10/29/2018 2:56 PM
Carolyn Timmann, Clerk of the Circuit Court & Comptroller
Rec Fees: \$426.50
CFN#2722935 BK 3024 PG 161 PAGE 1 of 50

Prepared By:
Martin County Growth Management Department
2401 S.E. Monterey Road
Stuart, FL 34996

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**MARTIN COUNTY, FLORIDA
DEVELOPMENT ORDER**

**REGARDING MINOR DEVELOPMENT FINAL SITE PLAN APPROVAL
FOR RIVER OAKS
WITH A CERTIFICATE OF PUBLIC FACILITIES RESERVATION**

WHEREAS, PDG Realty, Inc., submitted an application for a final site plan for the River Oaks project (M211-004), formerly known as Holman Subdivision, located on lands legally described in Exhibit A, attached hereto.

WHEREAS, this application meets the criteria for a minor development final site plan as established in Section 10.14.G., Land Development Regulations (LDR), Martin County Code.

WHEREAS, pursuant to Section 10.14.D, LDR, Martin County Code, final action on an amendment to existing minor development orders shall be taken by the County Administrator or his/her designee.

WHEREAS, the County Administrator has delegated final action on administrative amendments to the Growth Management Director.

NOW, THEREFORE, THE GROWTH MANAGEMENT DIRECTOR HEREBY DETERMINES THAT:

A. The final site plan, attached hereto as Exhibit B, for the River Oaks project is approved. More specifically, this approval is for a 21-lot single family residential subdivision with associated infrastructure and preserve areas. Development of the River Oaks project shall be in accordance with the approved final site plan and the approved Preserve Area Management Plan (PAMP), attached hereto as Exhibit C.

B. Approval of the development order is conditioned upon the applicant's submittal of all required applicable state and federal permits and approvals to the Growth Management Department (GMD) prior to the commencement of any construction.

C. No permits for construction or development activity shall be issued until all required documents, plans and fees are received and approved as required by Section 10.9, LDR, Martin County Code. D. Failure to submit the required documents, plans and fees as required by Section 10.9, LDR, Martin County Code, shall render approval of the final site plan for the River Oaks project null and void.

E. This application is hereby determined to meet the requirements for and shall serve as a Certificate of Public Facilities Reservation as set forth in Section 5.32.D, LDR, Martin County Code. Payment of appropriate fees shall be paid at the time of building permit issuance pursuant to Section 5.32.D.4.c.(3) LDR, Martin County Code.

F. All permits for the River Oaks project infrastructure must be obtained within one year of final site plan approval, by June 1, 2019. Development of the entire project, excepting the single-family residences, must be completed within two (2) years of final site plan approval, by June 1, 2020. No rights to obtain development orders are herein conveyed beyond the two (2) year reservation period except as permitted in Section 5.32.D.8., LDR, Martin County Code. All remaining impact fees and capital facility charges shall be paid in full within sixty (60) days of an approval of a requested extension pursuant to Section 5.32.D.4.c.(3), LDR, Martin County Code.

G. The Right-of-Way Maintenance Agreement, as approved by the County, must be executed for the construction and maintenance of the proposed landscaping within the SW Mapp Road right-of-way.

H. Hauling of fill from the site is prohibited. The routes and timing of any fill to be hauled to the site shall be coordinated with the County Engineer. Compliance with all County excavation and fill regulations is required.

I. The executed mitigation agreement between MCSD and the Applicant, consistent with section 6.5 of the Interlocal Agreement regarding School Facilities Planning and Siting, and the mitigation payment, as set forth within the agreement, shall be submitted within 60 days of approval of the development order.

J. No land clearing is authorized prior to the mandatory pre-construction meeting for the project. Property corners and preservation areas shall be located by a licensed land surveyor and clearly marked in the field prior to the pre-construction meeting. Authorization for clearing to install erosion control devices and preserve barricades will be granted at the pre-construction meeting. No additional land clearing shall commence until a satisfactory inspection of the required control structures and barricades has been obtained. Authorization for the relocation of gopher tortoises within the development, as provided for on state agency permits, may be granted by the Growth Management Department upon review of required permit materials.

K. This development order shall be recorded in the public records of Martin County. A copy shall be forwarded to the applicant by the Growth Management Department subsequent to recording.

DATED THIS 1ST DAY OF JUNE, 2018.



Nicki van Vonno
Growth Management Director

ATTACHMENTS:

Exhibit A, Legal Description
Exhibit B, Final Site Plan
Exhibit C, PAMP

EXHIBIT "A"

LEGAL DESCRIPTION

THE NORTH ONE HALF OF THE NORTHEAST ONE QUARTER OF THE
NORTHWEST ONE QUARTER OF SECTION 7, TOWNSHIP 38 SOUTH,
RANGE 41 EAST, LESS AND EXCEPT THE NORTH 160 FEET THEREOF
AND LESS AND EXCEPT THE EAST 50 FEET THEREOF.

SAID PARCEL CONTAINING 649,062 SQUARE FEET OR 14.90 ACRES MORE OR LESS.

Parcel Control Numbers: 07-38-41-000-000-00050-8
07-38-41-000-000-00051-7

Address: 1350 & 1404 S.W. Mapp Road
Palm City, FL

EXHIBIT B

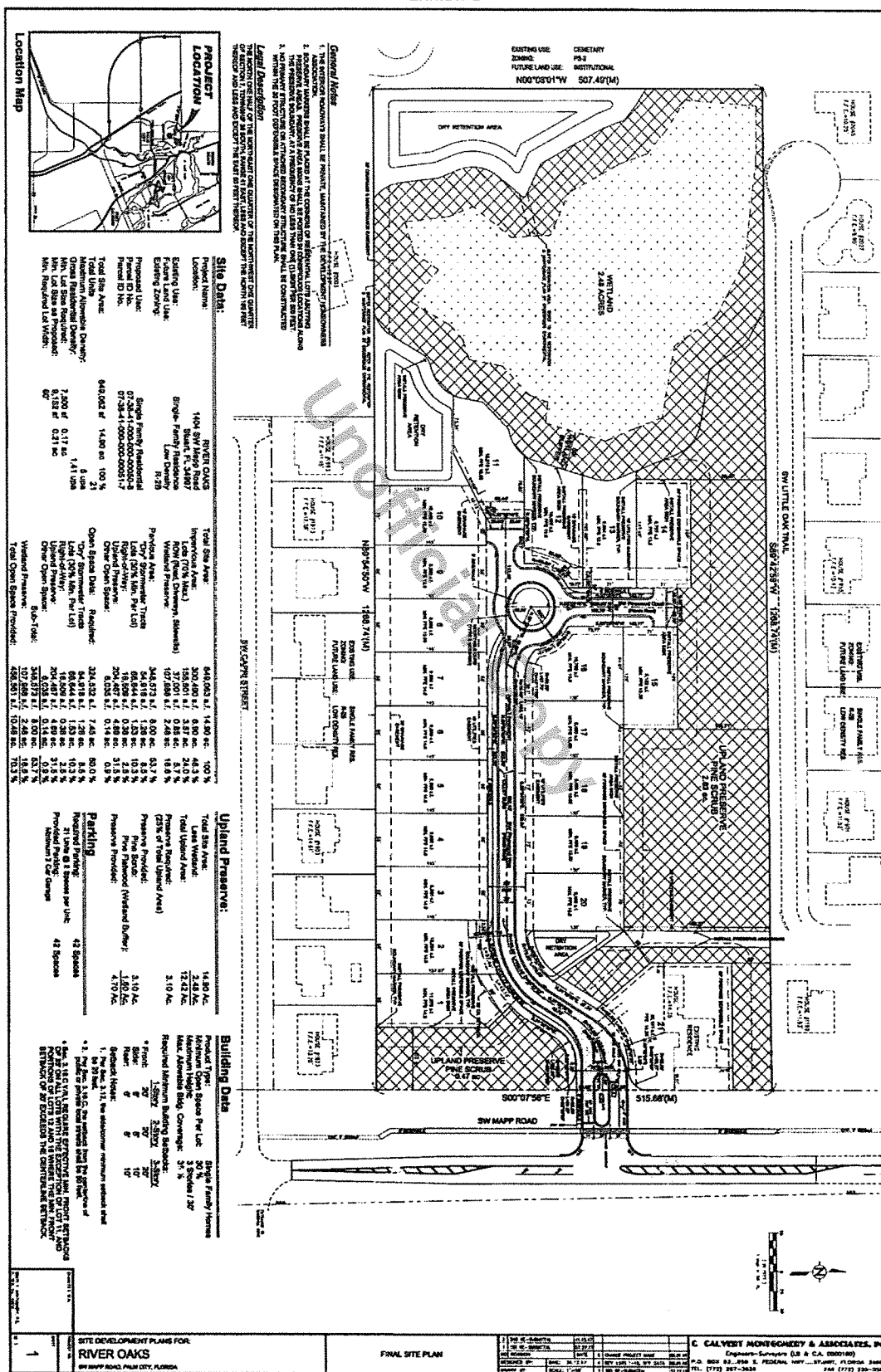


EXHIBIT C

PRESERVE AREA MANAGEMENT PLAN/ ABBREVIATED PRESERVE AREA MANAGEMENT PLAN

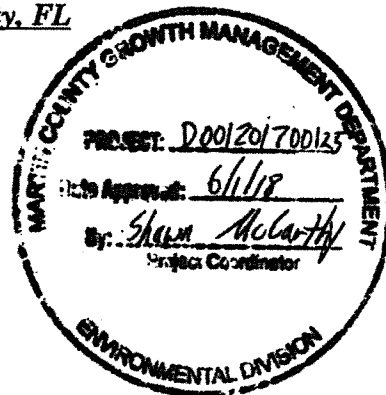
MARTIN COUNTY GROWTH MANAGEMENT DEPARTMENT ENVIRONMENTAL DIVISION



River Oaks

Section 7, Township 38, Range 41E

Palm City, Martin County, FL



Approved by/Date : _____

Revised December 2015

PART I

ENVIRONMENTAL ASSESSMENT

Environmental Assessment River Oaks

I. Existing Conditions

An environmental assessment was performed by Crossroads Environmental Consultants, Inc. Site assessment work was conducted on multiple occasions as part of the development planning process with a field visit conducted in January 10, 2016. The assessment was done on the parcels (07-38-41-000-000-00050-8 and 07-38-41-000-000-00051-7) and natural habitat delineations have been completed.

This property is approximately 14.90 acres and is located at 1404 Sw Mapp Rd, in Palm City, Florida. State jurisdictional wetlands were delineated by the Florida Department of Environmental Protection (43-00036-IF) along with the Martin County required fifty foot buffers.

Pedestrian transects were completed throughout the property in order to evaluate the area. The property was traversed in an east to west direction, with transects varying from approximately 20-30 feet apart so that all habitat could be observed. The habitat on site is a mixture of pine flatwoods, residential lands, and herbaceous wetlands. Properties surrounding and adjacent to the site are residential.

A. Proposed Conditions

The property owner is currently building a residence on the site. All Martin County and SFWMD upland and wetland preserve areas will be retained in their natural state, free from exotic vegetation, with maintenance and monitoring to be conducted in accordance with this PAMP. No additional wetland areas aside from those already established by the SFWMD determination are present.

B. Previous Impacts

This property has experienced minor impacts associated with clearing for residential building purposes. Clearing has occurred in association with the single family residences on the parcels some time ago.

II. Soils

Based on a review of the Florida Department of Environmental Protection Water Data Central, the site is composed of:

Waveland Sand - This soil is a nearly level, poorly drained soil in broad open areas of the flatwoods. The water table is typically at a depth of less than 10 inches for 2 to 4 months during wet seasons, and within a depth of 40 inches for 6 months or more.

Salerno Sand - This soil is a nearly level, poorly drained soil in broad areas of flatwoods. The water table is typically at a depth of less than 10 inches for 2 to 4 months during wet seasons, and at a depth of greater than 40 inches during the dry season. The surface layer is typically black to very dark gray sand about 9 inches thick. Natural vegetation is characterized by slash pine, saw palmetto, gallberry, fetterbush, wax myrtle, creeping bluestem, broom sedge, bluestem, chalky

bluestem, pineland threeawn, and panicums. This soil is too wet for cultivated crops and citrus unless water management system is installed. The soil is moderately suited for pasture.

Hobe fine sand, 0 to 5 percent slopes - This somewhat excessively drained soil is typically located on knolls and ridges in coastal areas of flatwoods. The surface layer is typically gray fine sand. The subsurface layer is gray, white and light gray fine sand to a depth of about 70 inches. The water table is generally at a depth of 50 to 60 inches for a brief period, but is generally below 80 inches. The native vegetation consists of sand pine, but occasionally slash pine is dominant. Understory vegetation is sand live oak, saw palmetto, fetterbush, sand heath, running oak, cacti, and scattered pineland threeawn, panicums, and other grasses. This soil is not suitable for cultivated crops due to the droughtiness and sandy texture. The soil is suitable for citrus and low for the commercial production of pine trees.

Nettles sand - The Nettles series consists of poorly drained, slowly or very slowly permeable soils that formed in sandy and loamy marine sediment. These soils are sandy and siliceous and have very severe limitations for cultivated crops because of wetness. The surficial layer is very dark gray sand 0 to 5 inches thick. The water table is at the surface for 2 to 4 months and between a depth of 10 to 40 inches for 4 to 6 months or more during most years. Nettles soils are found in broad areas of flatwoods and in shallow depressions in the flatwoods. Most areas remain in natural vegetation and are comprised of slash pine, with an understory of saw palmetto, wax myrtle, gallberry, pineland threeawn, fetterbush, dwarf huckleberry, red root, running oak bluestems, indian grass and panicums. The soil is not suitable for row crops, citrus or pasture under natural conditions unless intensive management, soil improving measures and a good water control system are implemented. This soil is well suited to pasture grasses.

The topography and soil map are provided in Attachment 3.

III. Existing Habitat/FLUCCS

A. Wetland Habitat

One jurisdictional wetland is present on parcels. The limits of these wetlands were established as part of the 2015 District Jurisdiction. Please see Aerial and FLUCCS maps.

Identified wetlands are classified as FLUCCS category:

#619: Exotic Wetland Hardwoods (± 2.48), Buffer (1.59 acres)

The vegetation observed includes the following:

Pickeral weed (*Pontederia cordata*)
Melaleuca (*Melaleuca spp.*)
Needle rush (*Juncus spp.*)
Red maple (*Acer rubrum*)

Please see FLUCCS map (Attachment 4).
Guava (*Psidium littorale*)
Slash pine (*Pinus densa*)
Maidencane (*panicum hemitomom*)

B. Upland Habitats

Upland portions of the site are comprised of Pine Flatwoods and Disturbed Lands.

Identified uplands are classified as FLUCCS categories:

#411: Pine Flatwoods (3.42 ac)

The vegetation observed includes the following:

Slash pine (<i>Pinus. elliottii</i> var. <i>densa</i>)	Saw palmetto (<i>Serenoa repens</i>)
Gallberry (<i>Ilex glabra</i>)	Wax myrtle (<i>Myrica cerifera</i>)
Laurel oak (<i>Quercus laurifolia</i>)	Brazilian Pepper (<i>Schinus terebinthifolius</i>)
Climbing Fern (<i>Lygodium spp.</i>)	Guava (<i>Psidium littorale</i>)

#436 Upland Pine Scrub (9.00 ac)

The vegetation observed includes the following

Slash pine (<i>Pinus. elliottii</i> var. <i>densa</i>)	Saw palmetto (<i>Serenoa repens</i>)
Gallberry (<i>Ilex glabra</i>)	Wax myrtle (<i>Myrica cerifera</i>)
Laurel oak (<i>Quercus laurifolia</i>)	Brazilian Pepper (<i>Schinus terebinthifolius</i>)
Wiregrass (<i>Aristida stricta</i>)	Sand pine (<i>Pinus clausa</i>)

IV. Wildlife Observations

The following species were observed during the site visit:

Reptiles: Gopher Tortoises

Amphibians: None

Mammals: None

Aves: None

Please see Attachments 5, 6, and 7 for additional information related to listed species.

V. Restoration/Mitigation Planting Plan

A. Eradication of Nuisance and Exotic Vegetation

Exotic vegetation is present inside the existing preserve areas on the property. All nuisance and exotic vegetation as listed by the Florida Exotic Pest Plant Council will be eradicated from the preserve area. Exotic vegetation includes both woody and non woody species.

- All Brazilian pepper trees and other woody exotics will be eradicated by cutting of the trunk and treatment of the stump with an appropriately labeled herbicide. All vegetative debris will be removed from preserve areas and disposed of offsite.
- The criterion for completion of the woody exotic eradication will be 100 percent kill. If initial eradication efforts do not achieve this criterion, follow up treatment will be conducted.
- Any debris removed will be handled in accordance with the disposal specifications.

The exotic vegetation present in the preservation area also includes small patches of non-woody species that primarily include old world climbing fern.

- All eradication of non-woody exotic vegetation will be through application of appropriately labeled herbicide.

- The criterion for acceptance of eradication for all non-woody exotic vegetation will be 100 percent kill. If initial eradication efforts do not achieve this criterion, follow up treatment will be conducted.
- The exotic vegetation eradication in the preservation areas will generate vegetative debris that requires disposal. There will be a staging and storage area provided adjacent to the preservation areas on the proposed project site, outside the limits of the preserves.
- Transport of vegetative debris from the preservation area to the staging area will be conducted in a fashion that minimizes the distribution and dispersal of seeds from such debris.
- No cut exotic or nuisance vegetative material will be left in the wetland preservation area.
- All vegetative debris, either whole or chipped/mulched will be hauled off site and disposed of at a landfill or other such appropriately licensed facility.

Herbicides are required for the treatment of all stumps of woody vegetation to prevent re-growth, and for eradication of non-woody exotic and nuisance vegetation.

- All herbicide application activity will be conducted under the supervision of a Florida Agriculture licensed applicator, licensed for application of aquatic herbicides.
- All herbicides applied within the wetland area must be properly labeled for application in wetlands.
- All herbicide applied must include a visible tracer dye in the mix to facilitate observation of treated vegetation.

Please see FLUCCS map provided in Attachment 4.

B. Replanting with Native Wetland/Transitional/Upland Vegetation

Any revegetation which might be necessary as a result of exotic vegetation removal, or previous recreational activities shall consist of native plant species representative of the existing native plant community. This will ensure that the Preserve Area maintains native plant communities. Revegetation plans shall be submitted to the Martin County Environmental Planning Administrator for approval prior to implementation.

1. Restoration of Wetland Preserve Area

The wetland preserve contains native vegetation and exotic removal. Maintenance activities (if needed) will include the eradication of exotic/nuisance vegetation. If revegetation is required post exotic removal the plant material will consist of similar species currently found within the wetland area. Any revegetation efforts will achieve 80% coverage of native vegetation within 18 months post restoration. The actual plant material quantities will be a site-specific decision. However, the following plant list has been established for the site and is based on observations of the on-site wetland species composition.

Please refer to The Restoration and Maintenance Plan associated with this project (attached)

2. Restoration of Wetland Buffer Preserve Area

The wetland buffer preserve contains a mixture of native vegetation and exotic plant species. Maintenance activities will include the eradication of exotic/nuisance vegetation. If revegetation is required post exotic removal the plant material will consist of similar species currently found within the wetland buffer area. Any revegetation efforts will achieve 80% coverage of native vegetation within 18 months post restoration. The actual plant material quantities will be a site-specific decision. However, the following plant list has been established for the site and is based on observations of the on-site wetland species composition.

VI. Conclusion


The River Oaks site contains an upland buffer, scrub preserve, and wetland preserve area. The intent of this PAMP is to establish these preserve lands. This PAMP will include the parcels (07-38-41-000-000-00050-8 and 07-38-41-000-000-00051-7) which is located at 1404 Sw Mapp Rd in Palm City. The areas will be managed in their natural state as required by this PAMP. Calculations are based off of 14.90 acre lot – 2.48 acres of wetlands = 12.42 acres (x .25) = 3.10 acres of which the site plan preserves 3.10 acres.

The site contains gopher tortoises, a state protected species, all required permitting will be completed before any land clearing activity will begin and will comply with FWC guidelines. Please note that some of the tortoises are located in preserves and will not be relocated, but will be left on site. No work will be done around these burrows to harm the tortoises or the preserve habitat they reside in.

VII. List of Exhibits

- Attachment 1: Location Map
- Attachment 2: Warranty Deed
- Attachment 3: Topography and Soils Map
- Attachment 4: FLUCCS Map
- Attachment 5: FFWCC Eagle Nest Locator
- Attachment 6: FFWCC Listed Species Search
- Attachment 7: USFWS IPAC Trust Resource List
- Attachment 8: Florida Master Site File TRS Search

Crossroads Environmental Consultants, Inc.


Drew Gatewood, MS, PWS
Project Manager/ Sr. Biologist

PART II CONDITIONS

A. RECORDING

This Preserve Area Management Plan (PAMP) will be recorded by the Martin County Clerk of Courts and labeled with the appropriate O.R. Book and Page Number. One copy of the recorded document will be provided to the Martin County Environmental Planning Administrator within thirty (30) days of the Recording date. This PAMP may be altered or amended only with the agreement of the Martin County Environmental Planning Administrator and the owner/developer and with the approval of the Martin County Board of County Commissioners. If the PAMP is altered or amended, the revised document will be recorded by the Martin County Clerk of Courts and one copy of the revised document will be provided to the Martin County Environmental Planning Administrator within thirty (30) days of the Recording date.

B. COMPLIANCE

The owner(s) of the lands to be preserved/maintained by this Preserve Area Management Plan (PAMP) and the developer(s) of the property described in this PAMP, their successors and assigns, and their environmental consultants and contractors, will implement and comply with all portions of this PAMP.

C. MONITORING AND REPORTING

Compliance with the terms of this PAMP includes submittal of Monthly Monitoring Reports on PAMP compliance throughout all phases of project construction and submittal of an Annual Monitoring Report each year for a period of five years following completion of project construction, pursuant to Section 10.17 of the Martin County Land Development Regulations. The owner(s) of the lands to be preserved shall have ultimate responsibility for the submittal of all Monitoring Reports.

Annual monitoring will be conducted by a qualified environmental professional no later than November 30 of each year following issuance of a Certificate of Occupancy for development described in the PAMP. A report presenting the results of the annual monitoring will be submitted by the environmental professional to the Martin County Environmental Planning Administrator within thirty days of the completion of the monitoring. Included in the Annual Monitoring Report will be a list of any violations of the PAMP during the previous year, with recommendations for, and a schedule of, remedial actions and any enhancement activities proposed for the coming year. All Annual Monitoring Reports are due no later than December 31 of the year they are to be submitted. After the first five-year monitoring period, the Preserve Areas may be subject to further monitoring and maintenance to ensure environmental integrity and consistency with the provisions of the Plan. A copy of the suggested template for the Annual Monitoring Report is attached to this PAMP as an Appendix.

D. TRANSFER OF OWNERSHIP

The Martin County Environmental Planning Administrator shall be notified in writing within thirty (30) days of transfer of ownership of any lands preserved by this PAMP. Failure to notify will be considered as a non-compliance with the terms of this PAMP.

E. SITE PLAN

The Site Plan included as an appendix to this PAMP illustrates all preserve areas, right-of-ways and easements, proposed structures, with distances to on- and off-site upland preserves, wetlands and wetland buffers, proposed final grade of developed area, and location of permanent preserve area signs. Included on the Site Plan will be a summary of the following: total acreage of the Site; acreage of wetland habitats under preservation; acreage of native and common upland habitats under preservation; acreage of upland buffer on-site; acreage of on-site wetland mitigation areas; and total acreage under preservation. The Site Plan will contain the notation: **"PRESERVE AREAS ARE NOT TO BE ALTERED WITHOUT WRITTEN PERMISSION OF THE MARTIN COUNTY BOARD OF COUNTY COMMISSIONERS."**

F. PRESERVE AREA SURVEYING REQUIREMENTS

All Preserve Areas will be surveyed and marked with permanent monuments at each corner and at other sites necessary for locating the boundary of the Preserve Area. These permanent monuments will be constructed under the supervision of a Registered Land Surveyor and will be shown on the Site Plan. Map coordinates of each Preserve Area will be provided to the Martin County Environmental Planning Administrator in a form compatible for use in the County's GIS mapping system.

G. PRESERVE AREA SIGNAGE REQUIREMENTS

Preserve Areas will be posted with permanent signs. These signs will be at least 11 x 14 inches in size and will be posted in conspicuous locations along the Preserve Area boundary, at a frequency of no less than one (1) sign per 500 feet. Boundary Markers will be placed at the corners of residential lots abutting Preserve Areas. All signs and boundary markers will be approved by the Martin County Environmental Planning Administrator and will be in place prior to issuance of a building permit for construction on the site. An example of the Preserve Area Sign is appended to this Plan.

H. SITE CLEARING

The Land Clearing/Erosion Control Plan appended to this PAMP contains information on land clearing to be conducted, existing vegetation to be retained, location of construction barricades around preserve areas, procedures for debris removal and soil stabilization, and location of silt fences. Where clearing of vegetation is proposed (i.e. building envelope, utilities, drainage, road right-of-way, etc.), the developer will ensure that all Preserve Areas and buffers are protected with construction barricades and erosion control devices in accordance with the following guidelines.

Construction barricades will be placed at least 10 feet outside of all Upland Preserve Areas, or at the dripline of the canopy trees, whichever is greater. Barricades will be inspected by County Environmental Division staff prior to work approval. Barricades will consist of high-visibility orange safety fence extending from the ground to a height of at least 4 feet and will not be attached to vegetation. Removal of the barricades will be approved only after issuance of a Certificate of Occupancy.

All native vegetation not slated for removal as part of the development plans will be retained in its undisturbed state and will be barricaded at or outside the dripline of the trees. Wetlands will be protected from possible surface water and sediment runoff by the placement of erosion control devices (e.g., silt screens, hay bales or other turbidity control measures) at least 5 feet outside the perimeter of the wetland buffer.

All barricades, silt screens and other erosion control devices will be upright and maintained intact for the duration of construction.

The owner/developer is required to inform all contractors of site clearing requirements. Failure to comply with these requirements will be considered a violation of the Site Plan approval. Work on the project may be stopped until compliance is achieved.

I. ACTIVITIES ALLOWED IN PRESERVE AREAS

Property owners are encouraged to enjoy the natural beauty of their Preserve Areas. Although development of Preserve Areas is not allowed, passive uses, such as bird-watching and other non-destructive uses of natural areas are encouraged, as long as they do not affect the hydrology or vegetative cover of a Preserve Area.

J. ACTIVITIES PROHIBITED IN PRESERVE AREAS

Activities prohibited in Preserve Areas or easements within Preserve Areas include, but are not limited to: construction; dumping or placing building materials, soil, garbage, trash, or dead vegetation on or above the ground; removal or destruction of native trees, shrubs or other native vegetation; excavation or dredging of soil; diking or fencing; vehicular traffic including use by non-motorized vehicles, recreational vehicles and off-road vehicles; permanent irrigation; trimming, pruning, or fertilization; and any other activities detrimental to drainage, flood control, water conservation, erosion control or fish and wildlife conservation and preservation.

No hazardous material other than fuel for refueling on-site equipment may be stored during construction. On-site fuel tanks may not be located within twenty-five (25) feet of any Preserve Areas and will be removed upon completion of construction work.

Buildings proposed to be located adjacent to Preserve Areas will be set back a minimum of ten (10) feet to allow for construction and maintenance without encroaching into the

Preserve Area. All other structures (e.g. pools, sheds, decks, fences) shall be set back a minimum of five (5) feet from the Preserve Area boundary.

Development activities such as the construction of building pads for associated structures, swales, or culverts for surface water management shall not alter the hydrology of adjacent Preserve Areas. Nor shall any activities increase non-point source pollution in Preserve Areas.

Grazing of cattle and horses or other livestock in Preserve Areas, while not prohibited, is discouraged. Over-grazing can result in destruction of habitat, loss of top soils and changes in hydrology of the area as a result of the loss of ground cover material, increased fertilization from animal droppings, and contamination of surface waters. These and other effects of over-grazing will be considered violations of this PAMP and will be addressed as any other PAMP violation.

K. RESTORATION AND MAINTENANCE ACTIVITIES

Except for approved restoration and maintenance activities, Preserve Areas will be left undisturbed. All maintenance of Preserve Areas will be in accordance with this PAMP. Maintenance and management activities will be performed by or under the supervision of a qualified environmental professional and must be approved by the Martin County Environmental Planning Administrator. A description of all proposed restoration and maintenance activities to be conducted on the site will be included in the Restoration/Mitigation Planting Plan prepared as part of the EA. The following restoration and maintenance activities may be allowed within Preserve Areas with prior written approval from the Environmental Planning Administrator: exotic plant removal; revegetation with native plants; removal of plant material that is dead, diseased, or considered to be a safety hazard; and controlled burns.

Exotic Plant Removal - Exotic vegetation shall be removed from Preserve Areas by the least ecologically-damaging method available. Such methods include hand pulling, hand spading, cutting with hand or chain saws and in-situ treatment with appropriate herbicides. No debris, including dead plants, plant clippings or wood scraps, shall be allowed in Preserve Areas. In addition, all dead plant material and exotic plant debris removed from Preserve Areas shall be disposed of in a County-approved recycling facility.

Revegetation - Any revegetation which might be necessary as a result of exotic vegetation removal or site construction activities shall consist of native plant species representative of the existing native plant community. This will ensure that the Preserve Areas maintain indigenous plant associations. Revegetation plans shall be included in the Restoration/Mitigation Planting Plan prepared as part of the EA.

All monitoring provisions necessary to assure the survivorship and maintenance responsibility for the reclamation areas of littoral and upland transition zone buffer areas around lakes constructed on the site managed by this PAMP shall be identified in the Restoration/Mitigation Planting Plan included in the EA for this site.

Vegetation Removal - Dead or diseased plant material shall be removed from Preserve Areas upon approval by the Martin County Environmental Planning Administrator. Revegetation may be required for any removed plant material. No debris, including dead plants, plant clippings or wood scraps, shall be allowed in Preserve Areas. All dead plant material and debris removed from Preserve Areas shall be disposed of in a County-approved recycling facility.

Prescribed Burns - Martin County considers prescribed burns an acceptable habitat management tool. When approved by the Martin County Environmental Planning Administrator, prescribed burns may be conducted by a certified burn manager who will be responsible for obtaining all appropriate permits from State and local agencies.

Other Restoration and Maintenance Activities - Alternative and innovative management techniques, which may provide for the long-term viability and habitat value of the Preserve Areas and for protection against imminent threats to public health and safety, may be approved by the Martin County Environmental Planning Administrator.

L. SITE HYDROLOGY

Previous or potential drainage impacts will be corrected to the extent technically feasible. Water quality and the rate, timing, and volume of run-off shall recreate natural conditions for the benefit of onsite wetlands and other waterbodies. Wetlands and waterbodies on adjacent properties shall be protected from adverse impacts.

M. PROTECTED SPECIES

If a protected species survey conducted as part of the Environmental Assessment of the project site indicates the presence of protected plant or animal species, the Environmental Assessment will include a Protected Species Management Plan. This Plan will include the results of the protected species survey; a listing and description of protected species occurring on, or utilizing, the site; documentation of the protection status of each species; a map of active and inactive burrows, nests, cavity trees, etc. found as part of the survey; a description of the protective measures being provided for each listed species found on the site; and copies of all correspondence with applicable state and federal agencies regarding the protection of listed species.

N. INSPECTIONS AND ENFORCEMENT

Martin County is authorized to inspect any County regulated site or appurtenance. Duly authorized representatives of Martin County may, at any time, upon presenting proper identification, enter upon and shall be given access to any premises for the purpose of such inspection. Martin County shall have the right to enforce the provisions of this PAMP through any available administrative or civil proceeding, which may result in penalties. Restoration of habitat and other remedies, such as fines and fees covering staff time, may be required of any person, corporation or other entity found in violation of any of the provisions of this PAMP or of Article 10 of the Martin County Land Development Regulations.

APPENDICES

Example of Preserve Area Sign

Annual Monitoring Report Template

Unofficial Copy

PRESERVE

AREA



PLEASE PROTECT

17479-51323

MARTIN COUNTY, FLORIDA

PRESERVE AREA MANAGEMENT PLAN

ANNUAL MONITORING REPORT FOR (Year)

Annual monitoring shall be conducted at the end of the wet season (usually by November 30) for five years from the date of PAMP approval. A report of the results of each monitoring event shall be submitted by the property owner to the Martin County Environmental Planning Administrator within 30 days of the completion of the monitoring. Monitoring and reporting are the responsibility of the property owner. However, a qualified environmental professional may conduct the monitoring, prepare the Annual Monitoring Reports, or submit the Reports.

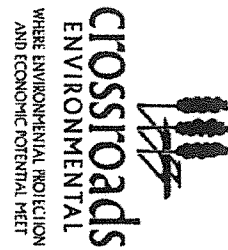
All Annual Monitoring Reports shall contain the following information:

- **Name and address of current owner of Preserve Area;**
- **Location of Preserve Area** (site/project location, Martin County Parcel Control Number, section/township/range, etc);
- **Date PAMP approved;**
- **Documentation of vegetation changes, including encroachment of exotic vegetation;**
- **Fixed-point panoramic photos of all Preserve Areas;**
- **Synopsis of maintenance activities conducted in compliance with the PAMP requirements such as exotic vegetation removal, revegetation, and additional enhancement activities necessary to maintain the Preserve Area;**
- **A timetable for action within 90 days of the report;**
- **A list of all violations of the PAMP; and**
- **Recommendations for remedial actions, with a proposed schedule for the coming year.**

Signature/Date : _____

Typed Name/Title : _____

Company Name (if applicable) : _____



Environmental Site Assessment

1404 SW Mapp Rd

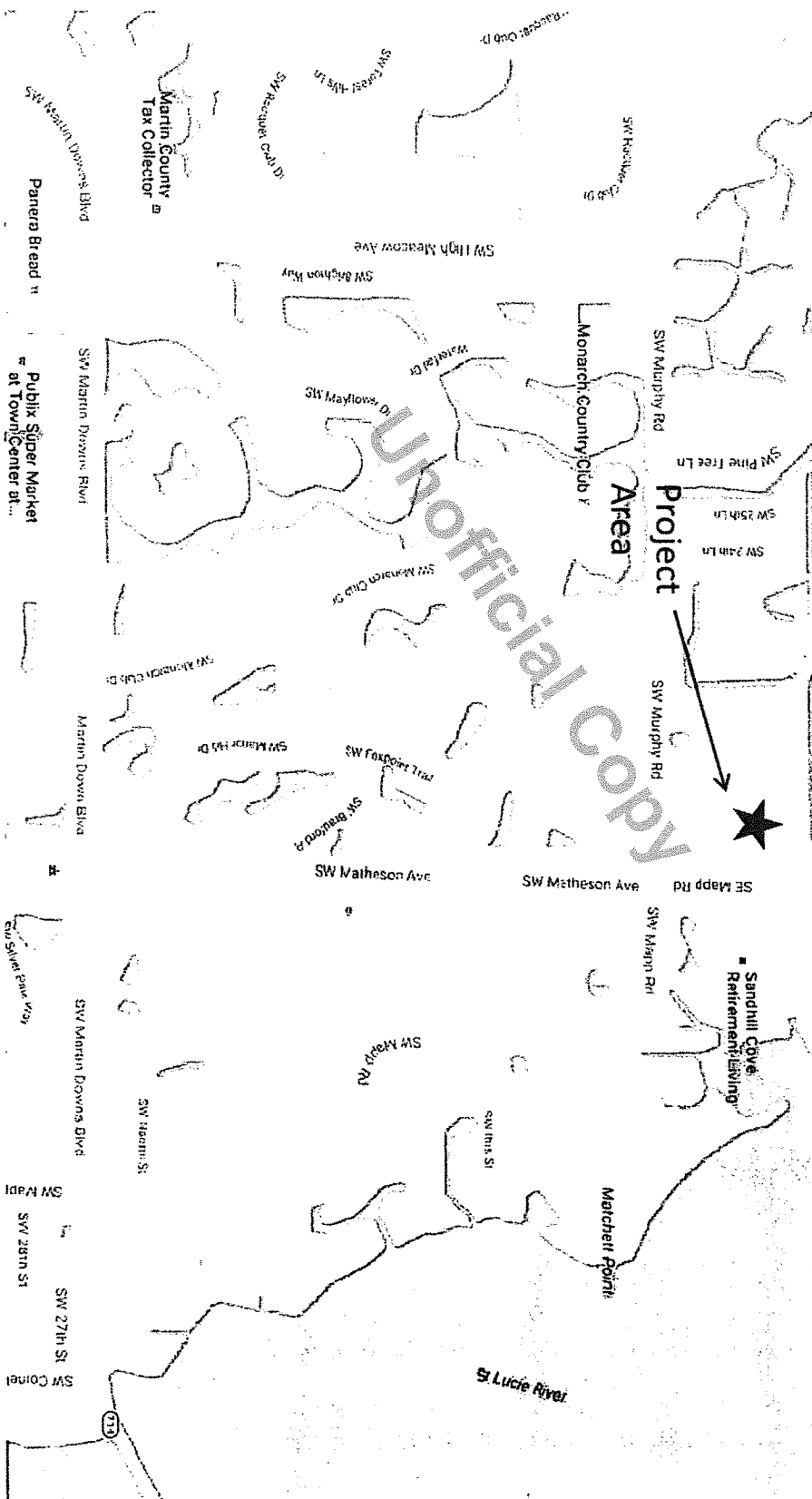
Palm City, Martin County, FL

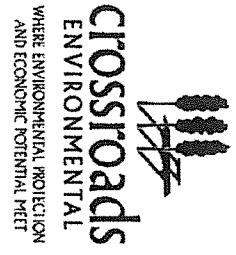
Location Map

Project: 1413

Parcel ID Number:
07-38-41-000-00050-8

3/8/2017





Environmental Site Assessment

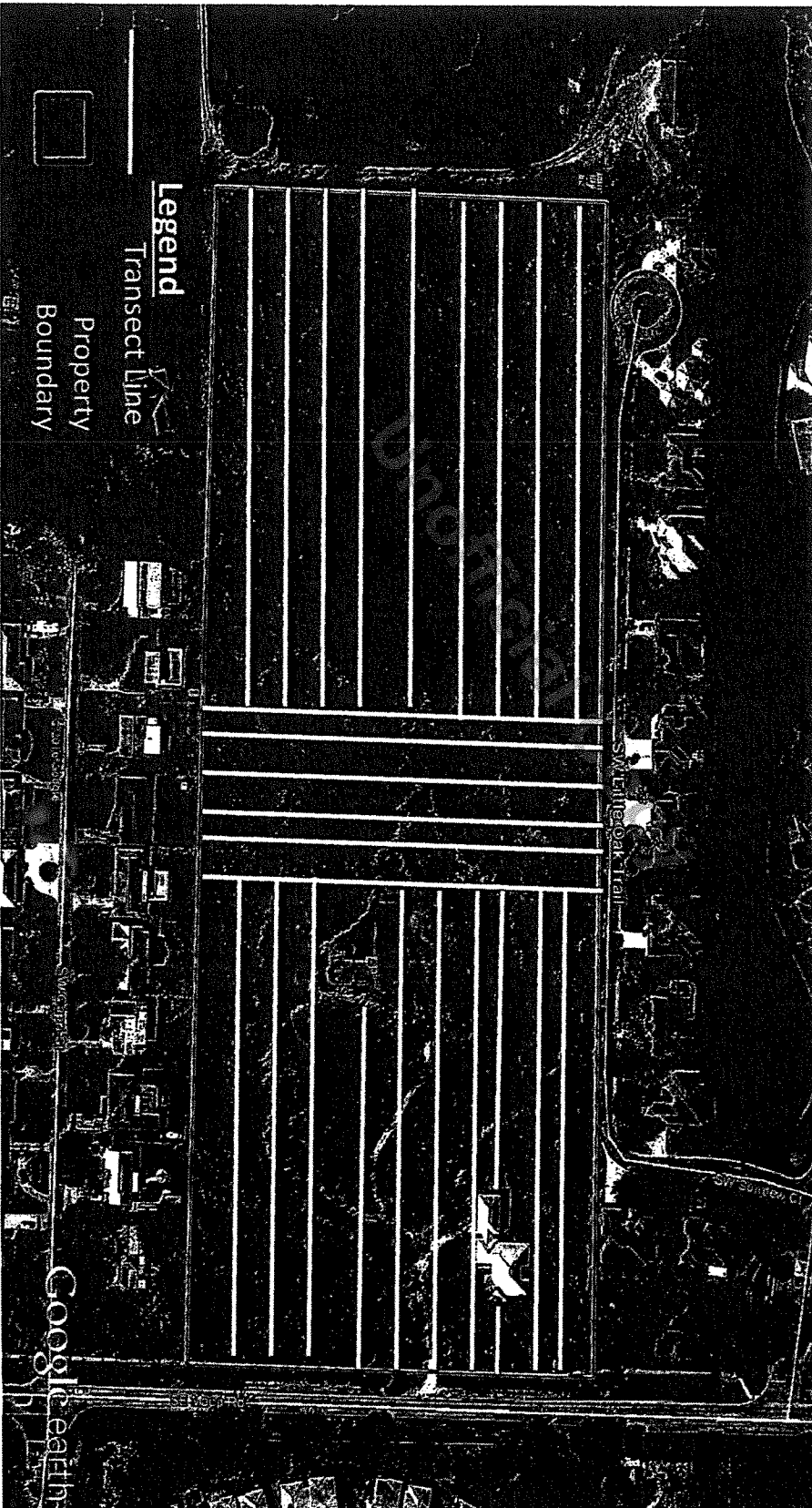
1404 SW Mapp Rd
Palm City, Martin County, FL

Aerial Map

Project: 1413

Parcel ID Number:
07-38-41-000-00050-8

3/8/2017



Mapp Rd, Palm City, FL

Project: 1413

6/21/2017





Environmental Site Assessment

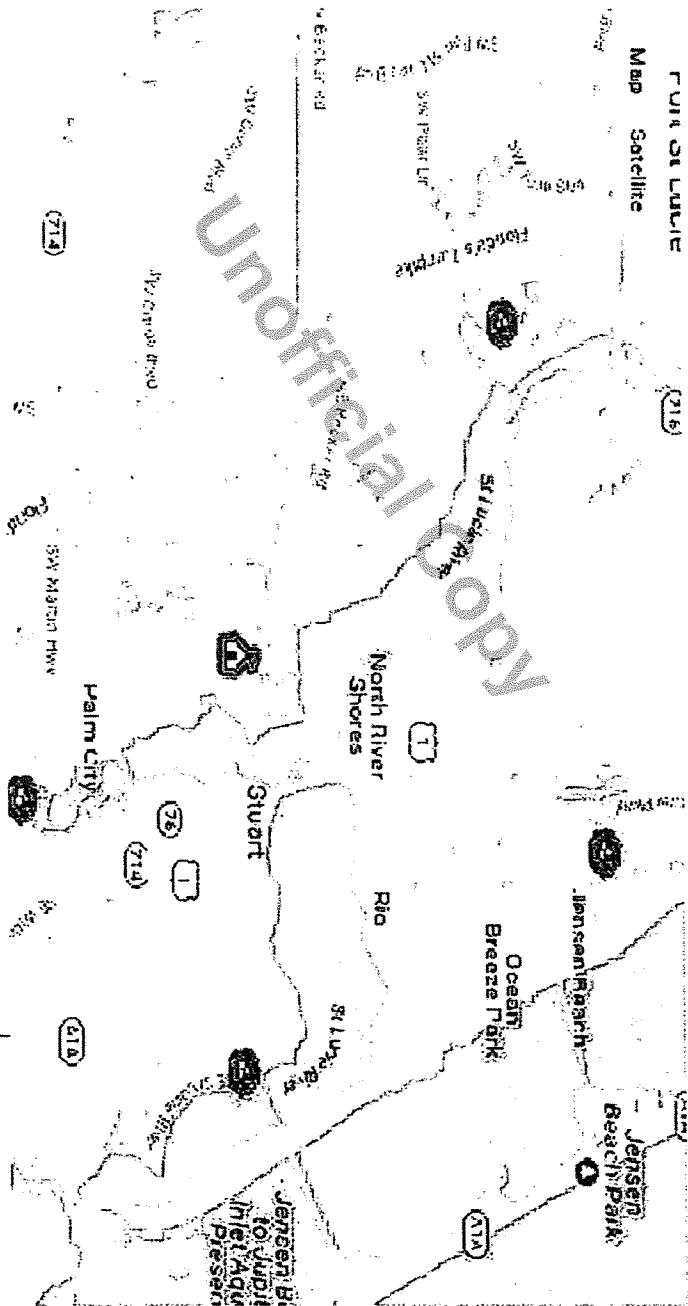
1404 SW Mapp Rd
Palm City, Martin County, FL

Aerial Map

Project: 1413

Parcel ID Number:
07-38-41-000-00050-8

3/8/2017



Raid Eagle Nest Data Search Results:

Nest ID	County	Latitude	Longitude	Known Active	Last Survey	Distance
View History	MT018	Martin	27 09.12	80 15.37	2009	2.95
View History	MT027	Martin	27 11.46	80 12.76	2012	4.12
View History	MT029	Martin	27 15.31	80 14.86	2017	4.96
View History	SL001	St. Lucie	27 14.26	80 19.92	2012	4.64

Results per page: 20



WHERE ENVIRONMENTAL PROTECTION
AND ECONOMIC POTENTIAL MEET

Environmental Site Assessment

1404 SW Mapp Rd
Palm City, Martin County, FL

Soil Map

Project: 1413

Parcel ID Number:
07-38-41-000-00050-8

3/8/2017

Martin County, Florida (FL085)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
5	Wetland and Lawwood fine sands, depressional	4.1	25.9%
35	Salerno sand	6.1	38.2%
61	Hobe fine sand, 0 to 5 Percent Slopes	5.4	33.7%
63	Netties sand	0.3	2.1%
Totals for Area of Interest		15.9	100.0%



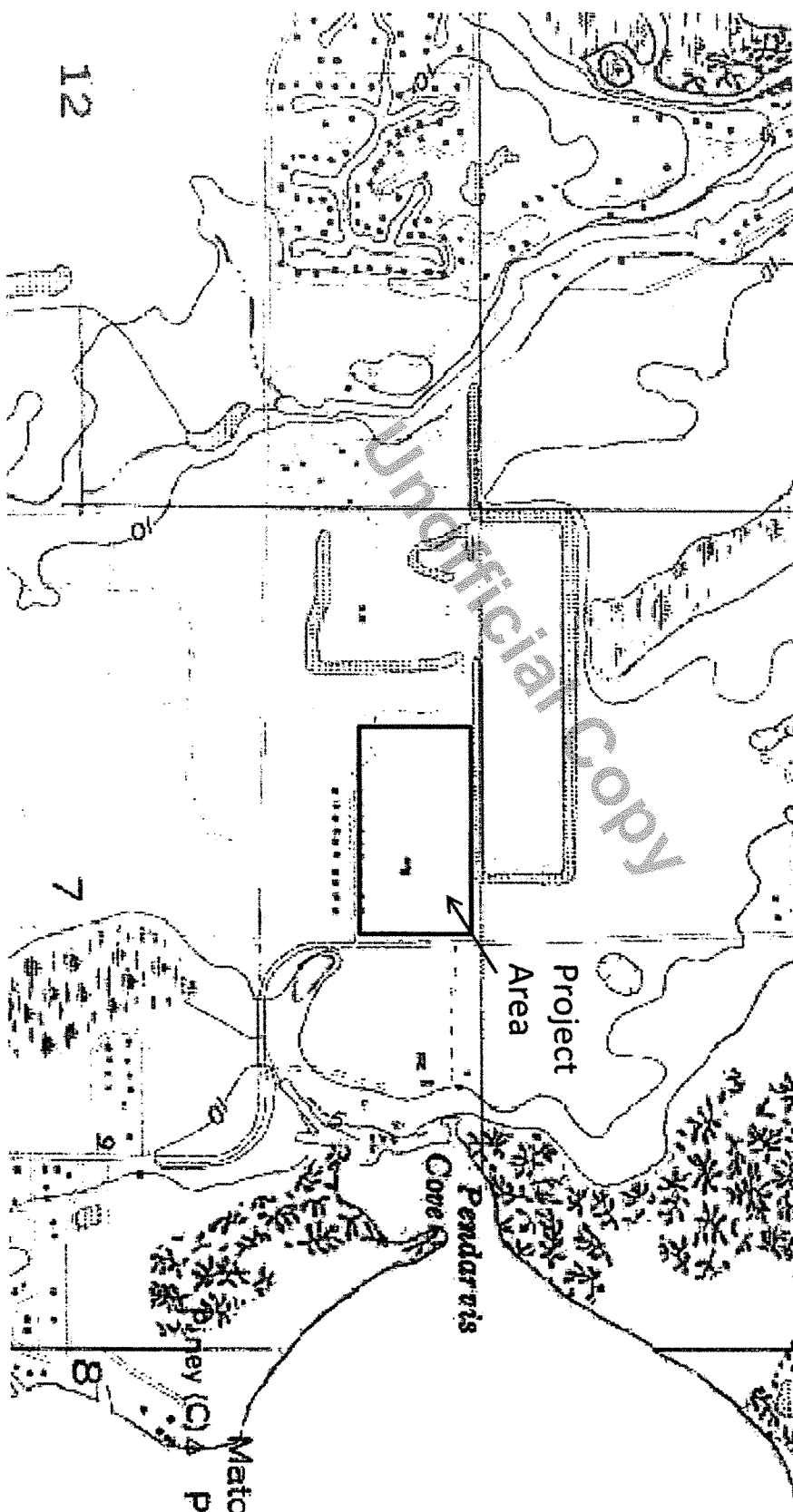
1404 SW Mapp Rd
Palm City, Martin County, FL

Topography Map

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Parcel ID Number:

3/8/2017



IPaC

U.S. Fish & Wildlife Service

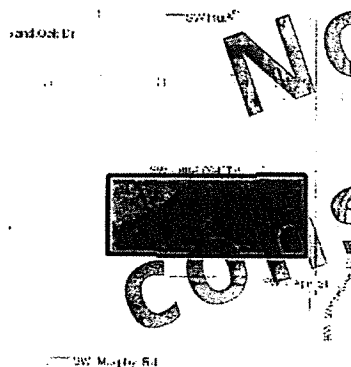
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Martin County, Florida



Local office

South Florida Ecological Services Field Office

☎ (772) 562-3909

📠 (772) 562-4288

1339 20th Street

Vero Beach, FL 32960-3559

<http://fws.gov/verobeach>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act requires Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

¹ are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Florida Panther Puma (=Felis) concolor coryi No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1763	Endangered
Puma (=mountain Lion) Puma (=Felis) concolor (all subsp. except coryi) No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6049	SAT
Southeastern Beach Mouse Peromyscus polionotus niveiventris No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3951	Threatened
West Indian Manatee Trichechus manatus There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/4469	Threatened

Birds

NAME	STATUS
Audubon's Crested Caracara Polyborus plancus audubonii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8250	Threatened

Everglade Snail Kite *Rostrhamus sociabilis plumbeus* Endangered

There is a final critical habitat designated for this species.
Your location is outside the designated critical habitat.
<https://ecos.fws.gov/ecp/species/7713>

Florida Scrub-jay *Aphelocoma coerulescens* Threatened

No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/6174>

Ivory-billed Woodpecker *Campephilus principalis* Endangered

No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/8230>

Kirtland's Warbler *Setophaga kirtlandii* (= *Dendroica kirtlandii*) Endangered

No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/8078>

Piping Plover *Charadrius melodus* Threatened

There is a final critical habitat designated for this species.
Your location is outside the designated critical habitat.
<https://ecos.fws.gov/ecp/species/6039>

Red Knot *Calidris canutus rufa* Threatened

No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/1864>

Red-cockaded Woodpecker *Picoides borealis* Endangered

No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/7614>

Whooping Crane *Grus americana* EXPN

No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/758>

Wood Stork *Mycteria americana* Threatened

No critical habitat has been designated for this species.
<https://ecos.fws.gov/ecp/species/8477>

Reptiles

NAME	STATUS
American Alligator <i>Alligator mississippiensis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/776	SAT
Eastern Indigo Snake <i>Drymarchon corais couperi</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/646	Threatened
Hawksbill Sea Turtle <i>Eretmochelys imbricata</i> There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/3656	Endangered
Leatherback Sea Turtle <i>Dermochelys coriacea</i> There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/1493	Endangered
Loggerhead Sea Turtle <i>Caretta caretta</i> There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/1110	Threatened

Fishes

NAME	STATUS
Smalltooth Sawfish <i>Pristis pectinata</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3253	Endangered

Insects

NAME	STATUS
Florida Leafwing Butterfly <i>Anaea troglodyta florialis</i> There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/6652	Endangered
Miami Blue Butterfly <i>Cyclargus (=Hemiargus) thomasi bethunebakeri</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3797	Endangered

Flowering Plants

NAME	STATUS
Beach Jacquemontia <i>Jacquemontia reclinata</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1277	Endangered
Four-petal Pawpaw <i>Asimina tetramera</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3461	Endangered
Johnson's Seagrass <i>Halophila johnsonii</i> There is a final <u>critical habitat</u> designated for this species. Your location is outside the designated critical habitat. https://ecos.fws.gov/ecp/species/4227	Threatened
Lakela's Mint <i>Dicerandra immaculata</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6390	Endangered
Tiny Polygala <i>Polygala smallii</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/996	Endangered

Lichens

NAME	STATUS
Florida Perforate Cladonia Cladonia perforata No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7516	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

¹ and the Bald and Golden Eagle Protection Act².

Any activity that results in the take (to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct) of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service

³ There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

- Conservation measures for birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data <http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The migratory birds species listed below are species of particular conservation concern (e.g. Birds of Conservation Concern) that may be potentially affected by activities in this location. It is not a list of every bird species you may find in this location, nor a guarantee that all of the bird species on this list will be found on or near this location. Although it is important to try to avoid and minimize impacts to all birds, special attention should be made to avoid and minimize impacts to birds of priority concern. To view available data on other bird species that may occur in your project area, please visit the AKN Histogram Tools and Other Bird Data Resources. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

NAME	SEASON(S)
American Bittern <i>Botaurus lentiginosus</i> https://ecos.fws.gov/ecp/species/6582	Wintering
American Kestrel <i>Falco sparverius paulus</i>	Year-round
American Oystercatcher <i>Haematopus palliatus</i> https://ecos.fws.gov/ecp/species/8935	Year-round
Bachman's Sparrow <i>Aimophila aestivalis</i> https://ecos.fws.gov/ecp/species/6177	Year-round
Bald Eagle <i>Haliaeetus leucocephalus</i> https://ecos.fws.gov/ecp/species/1626	Year-round
Black Rail <i>Lateralallus jamaicensis</i> https://ecos.fws.gov/ecp/species/7717	Breeding
Black Skimmer <i>Rynchops niger</i> https://ecos.fws.gov/ecp/species/5234	Year-round

Black-whiskered Vireo <i>Vireo altiloquus</i>	Breeding
Brown Booby <i>Sula leucogaster</i>	Wintering
Brown-headed Nuthatch <i>Sitta pusilla</i>	Year-round
Chuck-will's-widow <i>Caprimulgus carolinensis</i>	Year-round
Common Ground-dove <i>Columbina passerina exigua</i>	Year-round
Gull-billed Tern <i>Gelochelidon nilotica</i> https://ecos.fws.gov/ecp/species/9501	Breeding
Least Bittern <i>Ixobrychus exilis</i> https://ecos.fws.gov/ecp/species/6175	Year-round
Least Tern <i>Sterna antillarum</i>	Breeding
Lesser Yellowlegs <i>Tringa flavipes</i> https://ecos.fws.gov/ecp/species/9679	Wintering
Limpkin <i>Aramus guarauna</i>	Year-round
Loggerhead Shrike <i>Lanius ludovicianus</i> https://ecos.fws.gov/ecp/species/8833	Year-round
Marbled Godwit <i>Limosa fedoa</i> https://ecos.fws.gov/ecp/species/9481	Wintering
Painted Bunting <i>Passerina ciris</i>	Wintering
Peregrine Falcon <i>Falco peregrinus</i> https://ecos.fws.gov/ecp/species/8831	Wintering
Prairie Warbler <i>Dendroica discolor</i>	Year-round

Red-headed Woodpecker	Melanerpes erythrocephalus	Year-round
Reddish Egret	Egretta rufescens https://ecos.fws.gov/ecp/species/7617	Year-round
Roseate Spoonbill	Platalea ajaja	Year-round
Saltmarsh Sparrow	Ammodramus caudacutus	Wintering
Short-billed Dowitcher	Limnodromus griseus https://ecos.fws.gov/ecp/species/9480	Wintering
Short-eared Owl	Asio flammeus https://ecos.fws.gov/ecp/species/9295	Wintering
Smooth-billed Ani	Crotophaga ani https://ecos.fws.gov/ecp/species/1754	Year-round
Swainson's Warbler	Limnithlypis swainsonii	Migrating
Swallow-tailed Kite	Elanoides forficatus https://ecos.fws.gov/ecp/species/8938	Breeding
Whimbrel	Numenius phaeopus https://ecos.fws.gov/ecp/species/9483	Wintering
Wilson's Plover	Charadrius wilsonia	Year-round
Worm Eating Warbler	Helminthos vermivorum	Migrating
Yellow Rail	Coturnicops noveboracensis https://ecos.fws.gov/ecp/species/9476	Wintering

What does IPaC use to generate the list of migratory bird species potentially occurring in my specified location?

Landbirds:

Migratory birds that are displayed on the IPaC species list are based on ranges in the latest edition of the National Geographic Guide, Birds of North America (6th Edition, 2011 by Jon L. Dunn, and Jonathan Alderfer). Although these ranges are coarse in nature, a number of U.S. Fish and Wildlife Service migratory bird biologists agree that these maps are some of the best range maps to date. These ranges were clipped to a specific Bird Conservation Region (BCR) or USFWS Region/Regions, if it was indicated in the 2008 list of Birds of Conservation Concern (BCC) that a species was a BCC species only in a particular Region/Regions. Additional modifications have been made to some ranges based on more local or refined range information and/or information provided by U.S. Fish and Wildlife Service biologists with species expertise. All migratory birds that show in areas on land in IPaC are those that appear in the 2008 Birds of Conservation Concern report.

Atlantic Seabirds:

Ranges in IPaC for birds off the Atlantic coast are derived from species distribution models developed by the National Oceanic and Atmospheric Association (NOAA) National Centers for Coastal Ocean Science (NCCOS) using the best available seabird survey data for the offshore Atlantic Coastal region to date. NOAA/NCCOS assisted USFWS in developing seasonal species ranges from their models for specific use in IPaC. Some of these birds are not BCC species but were of interest for inclusion because they may occur in high abundance off the coast at different times throughout the year, which potentially makes them more susceptible to certain types of development and activities taking place in that area. For more refined details about the abundance and richness of bird species within your project area off the Atlantic Coast, see the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other types of taxa that may be helpful in your project review.

About the NOAA/NCCOS models: the models were developed as part of the NOAA/NCCOS project: [Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#). The models resulting from this project are being used in a number of decision-support/mapping products in order to help guide decision-making on activities off the Atlantic Coast with the goal of reducing impacts to migratory birds. One such product is the [Northeast Ocean Data Portal](#), which can be used to explore details about the relative occurrence and abundance of bird species in a particular area off the Atlantic Coast.

All migratory bird range maps within IPaC are continuously being updated as new and better information becomes available.

Can I get additional information about the levels of occurrence in my project area of specific birds or groups of birds listed in IPaC?

Landbirds:

The [Avian Knowledge Network \(AKN\)](#) provides a tool currently called the "Histogram Tool", which draws from the data within the AKN (latest, survey, point count, citizen science datasets) to create a view of relative abundance of species within a particular location over the course of the year. The results of the tool depict the frequency of detection of a species in survey events, averaged between multiple datasets within AKN in a particular week of the year. You may access the histogram tools through the [Migratory Bird Programs AKN Histogram Tools](#) webpage.

The tool is currently available for 4 regions (California, Northeast U.S., Southeast U.S. and Midwest), which encompasses the following 32 states: Alabama, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin.

In the near future, there are plans to expand this tool nationwide within the AKN, and allow the graphs produced to appear with the list of trust resources generated by IPaC, providing you with an additional level of detail about the level of occurrence of the species of particular concern potentially occurring in your project area throughout the course of the year.

Atlantic Seabirds:

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAANCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project](#) webpage.

Facilities

Wildlife refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGES AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory

programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Unofficial Copy
Not for
consultation



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Regulation Division

March 12, 2015

Mr. James Holman
1404 SW Mapp Road
Palm City, Florida 34990

**Subject: Application No. 150305-9 Permit No. 43-00036-IF
Martin County, S7/T38S/R41E**

Dear Mr. Holman:

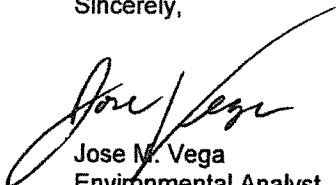
The District offers the following in response to your request for a determination of wetland boundaries located within the subject property. A site visit was conducted by District staff on March 11, 2015. Based on the site visit, and other site-specific information, this site contains wetlands as defined by Chapter 62-340 Florida Administrative Code (FAC). The approximate project boundaries are identified on the attached aerial photograph. The area considered wetlands are outlined in yellow.

This correspondence is an informal wetland determination pursuant to Chapter 373, Florida Statutes. It does not bind the District, its agents or employees, nor does it convey any legal rights, expressed or implied. Persons obtaining this informal wetland determination are not entitled to rely upon it for purposes of compliance with provision of law or District rules. A binding wetland determination may be obtained by petitioning the South Florida Water Management District for a wetland declaratory statement pursuant to FAC Rule 62-340 or by applying for an Environmental Resource permit.

The identified wetlands and, potentially other areas of the property not jurisdictional under State rules, may be wetlands and/or other waters of the United States under federal rules. Dredging or filling in such areas may require a Department of Army (DA) permit. Receipt of a state or local government permit does not obviate the need to obtain a DA permit prior to commencing work. For more information about the DA Regulatory Program, you may access the Corps' website at: www.saj.usace.army.mil/permit/index.html. You may also contact the local Corps regulatory office for additional information, at one of the following numbers: 561-472-3517, 561-472-3506, or 561-472-3514. If you have any further questions, please contact me at (863) 462-5260 x3636.

Mr. Holman
March 12, 2015
Subject: Application No. 150305-9 Holman Property
Page 2

Sincerely,



Jose M. Vega
Environmental Analyst
Martin/St. Lucie Regulatory Office
South Florida Water Management District
863-462-5260 ext 3636
800-250-4200 ext 3636
3800 NW 16th Blvd. Suite A
Okeechobee, FL 34972

BC/jv- Attachments (Location Map, Soils Map, Wetland Diagram)

Cc: Shawn McCarthy- Martin County Growth Management Department
U.S. Army Corps of Engineers, Palm Beach Gardens
Daniel Saskowsky

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Mr. Holman
March 12, 2015
Subject: Application No. 150305-9 Holman Property
Page 3

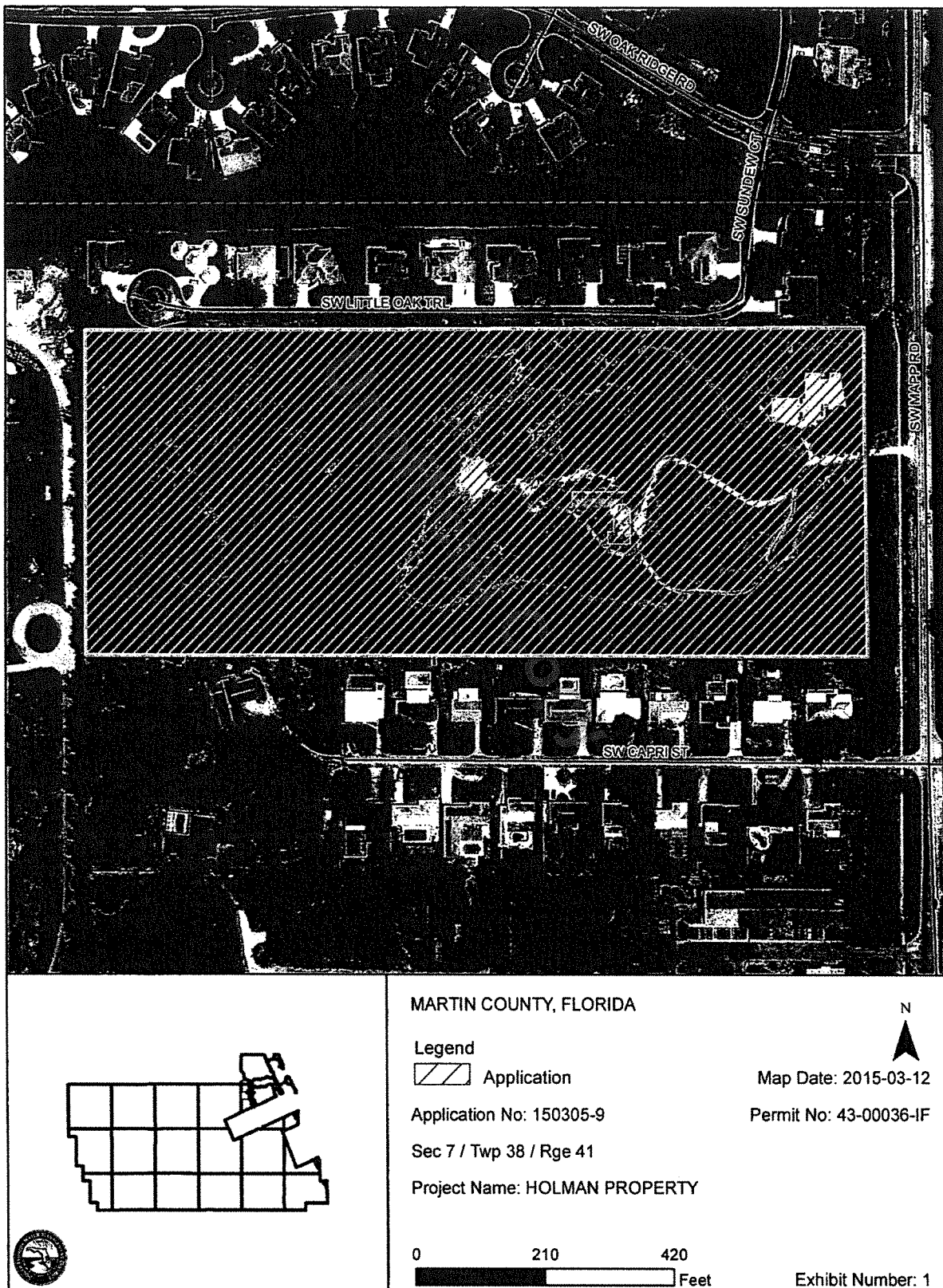
Addresses:
Shawn McCarthy
Martin County Administrative Center
Growth Management
2401 SE Monterey Road
Stuart, FL 34996

smccarth@martin.fl.us

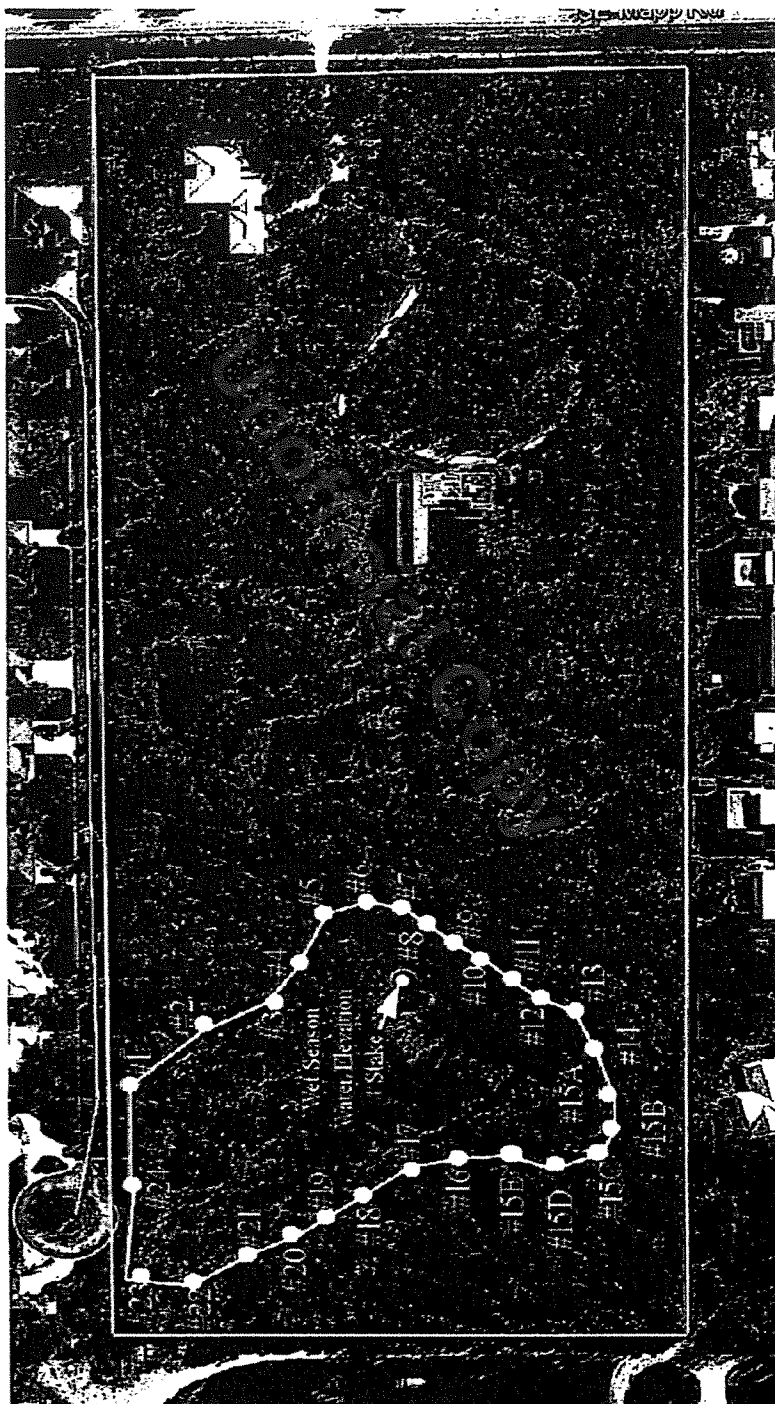
Daniel Saskowsky
4639 SE Glen Ridge Trail
Stuart, FL 34997

dsaskowsky@bellsouth.net

Unofficial Copy



HOLMAN PROPERTY



SFWMD File: **150305-9**

Date: **3/11/2015**

Reviewer: **Jesse Vega**

County: **Martin** S 7 T 38R 41E

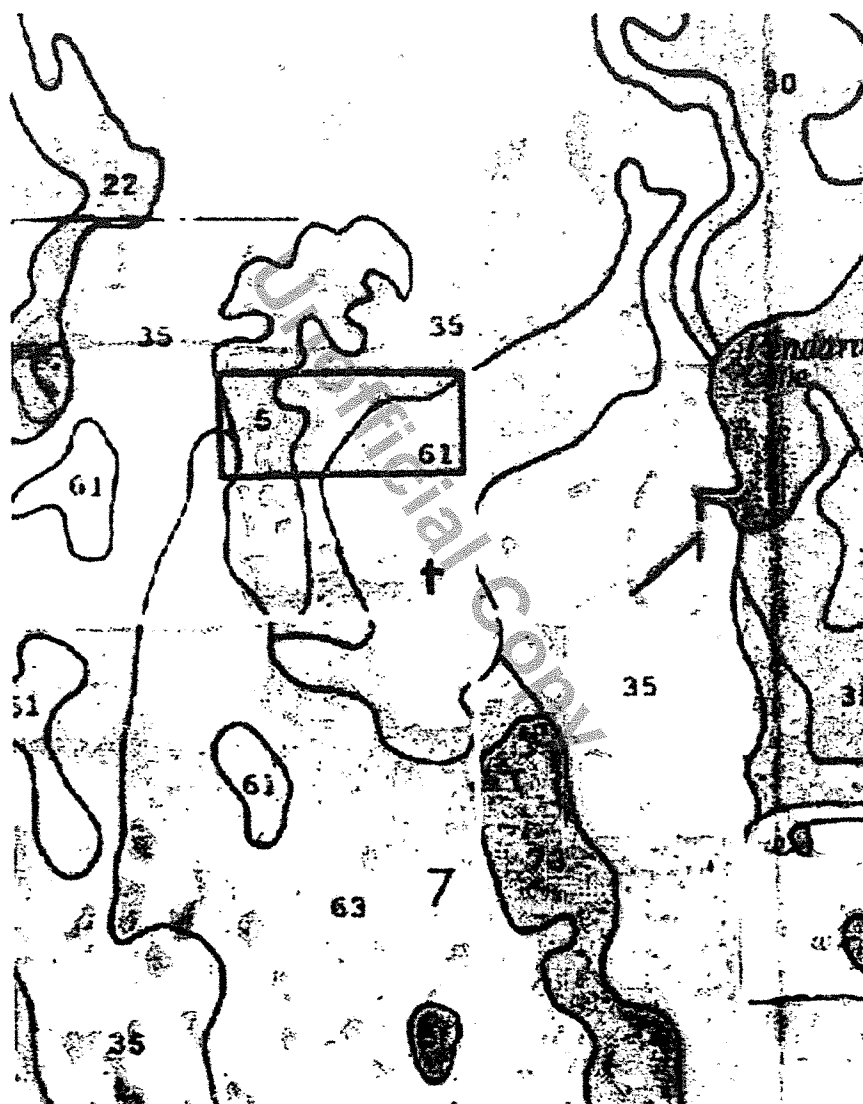
///= Wetlands (w) Other Surface Waters (osw)



South Florida Water Management District

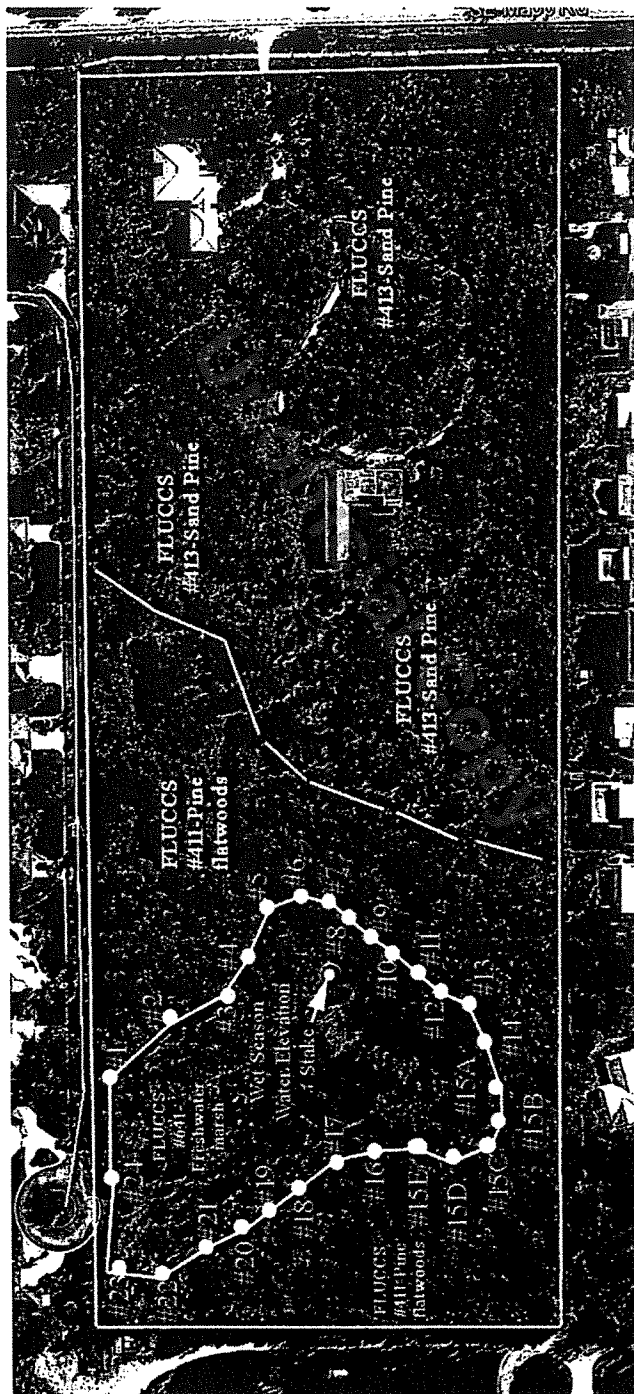
HOLMAN PROPERTY
SOILS MAP

150305-9



#5 Waveland sand, depressional
#35 Salerno sand
#61 Hobe fine sand

Holman Property FLUCCS MAP

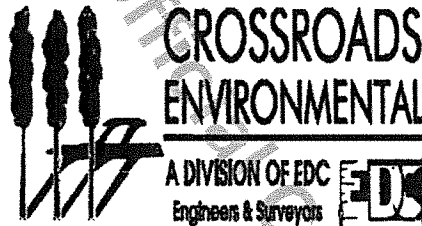


Holman Subdivision
Restoration & Maintenance
Plan

Prepared for:

Martin County

Prepared by:



10250 Sw Village Parkway
Port St Lucie, FL 34987

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June 2017

RECEIVED

JUL 31 2017

**GROWTH MANAGEMENT
DEPARTMENT**

Introduction

The Holman Subdivision includes scrub, pine flatwood and wetland habitat restoration on west side of property (If needed), maintenance and monitoring. The project is located at Parcel Ids 07-38-41-000-000-0005.0-8 and 07-38-41-000-000-0005.1-7. The vegetative strategy for the buffer restoration area includes the planting of various sized native species in order to offset any impacts that may occur due to inadvertent clearing.

Restoration Area

The restoration activity proposed will incorporate a 3.10 acre vegetated scrub habitat, 1.60 acres pine flatwoods and 2.48 acres of wetlands along the western, northern and southern edges of the site. Exotic removal maintenance will be an ongoing event.

Additionally included in this plan is the restoration of 0.09 acres of wetland buffer that will have stormwater management system impacts requiring replanting efforts post completion. Please see planting list associated with this as well as the site plan attached in this report for further information.

Proposed Work Plan

After approval of the proposed restoration plan, the landowner will initiate restoration activities associated with the proposed 4.70 acres of scrub, wetland and wetland buffer area. The applicant will plant the restoration area, establish five (5) sampling stations, and complete the time zero data collection. After submission of the initial report, the County will be invited to inspect the restoration area.

Restoration Planting

The potential restoration of the Holman Subdivision preserve area consists of replanting damaged scrub habitat areas. Planting efforts will reflect native species found within this habitat. The vegetative success criteria for the restoration areas include the goal for 80 percent coverage of desirable vegetation in the designated planting areas and within twelve (12) months, aerial coverage of exotic vegetation at zero percent, and nuisance vegetation limited to 5 percent or less within the restoration areas. Replanting of the area will be evaluated after one year (12 months).

The quantities listed below are for the approximant 4.70 acre vegetated preservation planting area (Wetland and Upland). The actual planting quantities may vary depending on the size and nature of the area to be planted. Final planting quantities will be submitted to Martin County.

Holman Subdivision Restoration Planting List

Common Name	Scientific Name	Size	Quantity	Spacing
<u>Wetland Area</u>				
Sawgrass	<i>Cladium jamaicense</i>	1 gal	832	5' o.c.
Fireflag	<i>Thalia geniculata</i>	1gal	832	5' o.c.
Pickrel Weed	<i>Pontedaria cordata</i>	1gal	832	5' o.c.
Bald Cypress	<i>Taxodium distichum</i>	3gal	208	10' o.c.
Red Maple	<i>Acer rubrum</i>	3gal	208	10' o.c.
Dahoon Holly	<i>Ilex cassine</i>	7gal	20	15' o.c.
<u>Buffer and Scrub Areas</u>				
Slash Pine	<i>Pinus densa</i>	3gal	100	10' o.c.
Wax Myrtle	<i>Myrica cerifera</i>	3gal	100	10' o.c.
Strangler Fig	<i>Ficus aurea</i>	7gal	20	15' o.c.
Prickly Pear	<i>Opuntia spp</i>	3gal	100	5' o.c.
Sand Pine	<i>Pinus palustris</i>	3gal	100	10' o.c.

Stormwater Restoration Areas (0.09 acres)

Common Name	Scientific Name	Size	Quantity	Spacing
Sand Cordgrass	<i>Cladium jamaicense</i>	1 gal	175	3' o.c.
Muhly Grass	<i>Thalia geniculata</i>	1gal	175	3' o.c.
Wax Myrtle	<i>Myrica cerifera</i>	3gal	25	10' o.c.

Success Criteria

The vegetative success criteria for the restoration areas include the goal for 80 percent coverage of desirable vegetation within twelve (12) months, and aerial coverage of exotic vegetation at zero percent, and nuisance vegetation limited to 5 percent or less within the restoration areas only. Wildlife success criterion will include the documented observation wildlife utilization, or indicators of wildlife (i.e. tracks, scat, etc.). Specifically this will include the observation of mammal tracks, scratchings, rubs, evidence of forging, and or direct observations.

If, after twelve (12) months the parcel has not achieved desired coverage requirements, supplemental plantings will be completed. Supplemental plantings, (if any) will be noted in the monitoring report.

Maintenance

In order to ensure continued viability of the resources maintenance activities in the form of exotic and nuisance plant species removal and monitoring in order to measure success criteria shall occur in the restoration areas only.

Initial removal and maintenance of exotic/nuisance plant and animal species is a critical component of the restoration activities within the restoration area. Exotic/nuisance plant species will be controlled by physical and chemical means in addition to various land management practices. Maintenance activities will be perpetual.

Restoration Monitoring

The restoration monitoring plan includes photo stations and data collection stations established along a transect through the restoration area (TBD). A total of five (5) data collection stations will be established along the restoration area. At each station vegetative data will be collected as outlined below. The five data stations will also include a "panoramic" photo stations in order to visually document vegetative coverage and conditions in the preservation area.

Vegetative coverage will be documented at each of the data collection stations in the Monitoring Plan. The vegetative coverage will be measured as absolute coverage within an area of approximately 2500 square feet at each monitoring station. The vegetation will be measured in percent coverage of the restoration areas vegetation. The total percent cover will not exceed 100 percent, and each species documented will be reported in both common and Latin names. The coverage will be measured by visual observation in each of four quadrants from the fixed monitoring point. Observations will extend approximately twenty five (25) feet from the observer in each direction thus covering approximately 2500 square feet at each station. The data from each quadrant observation will be combined to calculate the vegetative coverage. Station locations will be permanently marked with PVC pipe to ensure consistency in data collection. At least three (3) photos will be collected from compass points at each of the established photo stations to provide documentation of vegetative coverage. In addition to vegetative coverage documentation, any observed wildlife utilization, or indicators of wildlife (i.e. tracks, scat, etc.) will be noted.

The monitoring will be conducted on an annual basis based on the schedule below. The data will be collected into one report that will be provided on an annual basis for five (5) years so that maintenance activity can be closely tracked. The reports provided will include a discussion and conclusion regarding progress towards the achievement of the success criteria as per the permit. If restoration goals are not met extended monitoring may be needed.

Monitoring/Maintenance Work Schedule

The schedule for conducting the proposed monitoring and maintenance is based on the date of notice to proceed from the appropriate agencies. The following schedule is proposed, with specific dates based upon receipt of notice to proceed.

<u>Activity</u>	<u>Months after Notice to Proceed</u>
Complete planting of proposed restoration area	1 month
County inspection of proposed restoration area	1 month
Conduct Time Zero Monitoring	1 month
Conduct exotic removal within restoration area	On-going maintenance
First Annual Monitoring Report and Coverage Evaluation	Baseline + 12 months
Second Annual Monitoring Report and Coverage evaluation	Baseline +24 Months
Third Annual Monitoring Report and Coverage Evaluation	Baseline + 36 months
Fourth Annual Monitoring Report and Coverage evaluation	Baseline + 48 months
Fifth Annual Monitoring Report and Coverage Evaluation	Baseline + 60 months

